

AMENDMENTS TO THE CLAIMS

1-3. (Canceled)

4. (Currently Amended) A liquid detoxification method for purifying a liquid by removing microbes ~~in untreated~~ from the liquid, said liquid detoxification method comprising ~~steps~~ for:

applying a microbe-separation treatment by filtration or centrifugal separation for removing comparatively large microbes present in ~~said~~ the liquid, said applying of the microbe-separation treatment by filtration ~~being performed by~~ comprising running ~~said~~ the liquid through a filter ~~or the like~~;

applying either one of chlorination or oxidization, said applying of the chlorination ~~being performed by~~ comprising producing a chlorine-containing substance from ~~said~~ the liquid and feeding ~~said~~ the chlorine-containing substance into ~~said~~ the liquid to thereby kill microbes, and said applying of the oxidization ~~being performed by~~ comprising adding an oxidizing substance to ~~said~~ the liquid; and

storing treated liquid into a tank for treated liquid.

5. (Currently Amended) The liquid detoxification method according to claim 4, further comprising a ~~step for~~ comprising:

applying a mechanical-treatment to ~~said~~ the liquid for damaging microbes therein ~~to~~ thereby to kill microbes before or after ~~said~~ step for applying of the ~~a~~ microbe-separation treatment.

6-9. (Canceled)

10. (Currently Amended) A detoxification method for purifying ~~untreated~~ seawater by removing microbes ~~in untreated~~ from the seawater, said detoxification method comprising ~~steps~~ for:

applying a microbe-separation treatment by filtration or centrifugal separation for removing comparatively large microbes present in ~~said~~ the seawater, said applying of the micro-separation

treatment by filtration comprising being performed by running said the seawater through a filter or the like;

applying either one of chlorination or oxidization, said applying of the chlorination being performed by comprising producing a chlorine-containing substance from said the seawater and adding the chlorine-containing substance into said the seawater to thereby kill microbes, and applying of said oxidization comprising being performed by adding an oxidizing substance to said the seawater; and

storing treated seawater into a ballast water tank.

11-14. (Cancelled)

15. (Currently Amended) A detoxification apparatus for purifying a liquid by removing microbes in untreated from the liquid-containing untreated seawater, said detoxification apparatus comprising:

a microbe-separation unit that applies a microbe-separation treatment by filtration or centrifugal separation for removing comparatively large microbes present in said the liquid, the said filtration being performed by running said the liquid through a filter or the like;

either one of chlorination means or oxidization means, said chlorination means for producing a chlorine-containing substance from said the liquid and feeding said the chlorine-containing substance into said the liquid to thereby kill microbes, and said oxidization means for adding an oxidizing substance to said the liquid; and

a tank for storing treated liquid.

16. (Currently Amended) The detoxification apparatus for purifying liquid according to claim 15, further comprising:

a mechanical treatment unit for applying a mechanical treatment to said the liquid to damage and kill microbes present in said the liquid before or after said microbe-separation unit applies the microbe-separation treatment.

17-21. (Canceled)

22. (Currently Amended) A detoxification method for purifying seawater stored in a ballast water tank by removing microbes from the ~~in~~ seawater ~~stored in a ballast water tank~~, said detoxification method comprising steps for:

applying a microbe-separation treatment by filtration or centrifugal separation for removing comparatively large microbes present in-said seawater, said applying of the ~~microbe-separation treatment by filtration comprising~~ ~~being performed by~~ running said ~~the~~ seawater through a filter ~~or the like~~;

applying either one of chlorination or oxidization, said applying of the ~~chlorination being performed by~~ comprising producing a chlorine-containing substance from said ~~the~~ seawater and feeding said ~~the~~ chlorine-containing substance into said ~~the~~ seawater to thereby kill microbes, and said applying of the ~~oxidization being performed by~~ comprising adding an oxidizing substance to said ~~the~~ seawater; and

discharging treated seawater out of said ~~the~~ ballast water tank.

23. (Currently Amended) A detoxification method for purifying seawater stored in a ballast water tank by removing microbes in ~~from the~~ seawater ~~stored in a ballast water tank~~, said detoxification method comprising steps for:

applying a microbe-separation treatment by filtration or centrifugal separation for removing comparatively large microbes present in said ~~the~~ seawater, said applying of the ~~microbe-separation treatment by filtration comprising~~ ~~being performed by~~ running said ~~the~~ seawater through a filter ~~or the like~~;

applying either one of chlorination or oxidization, said applying of the ~~chlorination comprising~~ ~~being performed by~~ producing a chlorine-containing substance from said ~~the~~ seawater and feeding said ~~the~~ chlorine-containing substance into the ~~said~~ seawater to thereby kill microbes, and said applying of the ~~oxidization comprising~~ ~~being performed by~~ adding an oxidizing substance to the ~~said~~ seawater; and

circulating said the seawater to said the ballast water tank.

24. (Currently Amended) The detoxification method ~~for purifying seawater~~ according to claim 22, further ~~comprising a step for comprising~~:

applying a mechanical-treatment to said the seawater for damaging microbes in said the seawater to thereby to kill microbes before or after ~~said step for applying of the~~ microbe-separation treatment.

25. (Currently Amended) The detoxification method ~~for purifying seawater~~ according to claim 22,

wherein said applying of the chlorination comprises applying the chlorination ~~is performed~~ in an electrolytic circulation system in which all or part of said the seawater stored in said the ballast water tank is introduced into a storing tank and circulated through a circulation line between said the storing tank and an electrolyzer for electrolyzing said the seawater to thereby ~~to~~ obtain the chlorine-containing substance, and said applying of the ~~microbe-separation~~ microbe separation treatment ~~is performed~~ comprises applying the microbe-separation treatment to said the seawater chlorinated in said applying of the electrolytic circulation system chlorination.

26. (Currently Amended) The detoxification method ~~for purifying seawater~~ according to claim 22,

wherein said the chlorine-containing substance is composed by chlorine, sodium hypochlorite, sodium chlorite, chloric acid, or their ions or sodium chloride.

27-32. (Canceled)

33. (Currently Amended) A detoxification apparatus for purifying seawater stored in a ballast water tank by removing microbes from the in seawater, said detoxification apparatus comprising:

a microbe-separation unit that applies a microbe-separation treatment by filtration or centrifugal separation for removing comparatively large microbes present in said the seawater, said the filtration being performed by running said the seawater through a filter ~~or the like~~;

either one of chlorination means or oxidization means, said chlorination means for producing a chlorine-containing substance from said the seawater and feeding said the chlorine-containing substance into said the seawater to thereby kill microbes, and said oxidization means for adding an oxidizing substance to said the seawater; and

wherein said the seawater previously treated in said microbe-separation unit and said chlorination means or said oxidization means is discharged out of said the ballast water tank.

34. (Currently Amended) A detoxification apparatus for purifying seawater stored in a ballast water tank by removing microbes in the seawater, said detoxification apparatus comprising:

a microbe-separation unit that applies a microbe-separation treatment by filtration or centrifugal separation for removing comparatively large microbes present in said the seawater, the said filtration being performed by running said the seawater through a filter or the like;

either one of chlorination means or oxidization means, said chlorination means for producing a chlorine-containing substance from said the seawater and feeding said the chlorine-containing substance into said the seawater to thereby kill microbes, and said oxidization means for adding an oxidizing substance to said the seawater; and

wherein said the seawater previously treated in said microbe-separation unit and said chlorination means or said oxidization means is circulated to said the ballast water tank.

35. (Currently Amended) The detoxification apparatus for purifying seawater according to claim 33, further comprising comprising:

a mechanical treatment unit for applying a mechanical treatment to said the seawater to damage and kill microbes present therein in said mechanical treatment unit being located downstream or upstream of said microbe-separation unit.

36-53. (Canceled)

54. (Currently Amended) The detoxification method for purifying seawater according to claim 23,

further comprising a step for comprising:

applying a mechanical-treatment to said the seawater for damaging microbes in said the seawater thereby to kill microbes before or after said step for applying of the microbe-separation treatment.

55. (Currently Amended) The detoxification method for purifying seawater according to claim 23,

wherein said applying of the chlorination is performed in comprises applying the chlorination in an electrolytic circulation system in which all or part of said the seawater stored in said the ballast water tank is introduced into a storing tank and circulated through a circulation line between said the storing tank and an electrolyzer for electrolyzing said the seawater to thereby to obtain the chlorine-containing substance, and said applying of the microbe-separation microbe separation treatment is performed to said comprises applying the microbe-separation treatment to the seawater chlorinated in said electrolytic circulation system applying of the chlorination.

56. (Currently Amended) The detoxification method for purifying seawater according to claim 23,

wherein said the chlorine-containing substance is composed by chlorine, sodium hypochlorite, sodium chlorite, chloric acid, or their ions or sodium chloride.

57-60. (Canceled)

61. (Currently Amended) The detoxification apparatus for purifying seawater according to claim 34, further comprising comprising:

a mechanical treatment unit for applying a mechanical treatment to said the seawater to damage and kill microbes present therein therein, said mechanical treatment unit being located in downstream or upstream of said microbe-separation unit.

62. (New) The liquid detoxification method according to claim 4, wherein said applying of the microbe-separation treatment comprises applying the microbe-separation treatment by filtration.